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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/780,984

02/09/2001

Kurt E. Spears

10011155-1

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7590

10/15/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

PHAM, THIERRY L

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 10/15/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/780,984

Applicant(s)

SPEARS ET AL.

Examiner

Thierry L Pham

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2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2-4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Maeshima et al (U.S. 4985760).

Regarding claim 1, Maeshima discloses a multiple resolution sensing apparatus comprising (image sensor (scanner) with multiple sensing areas, fig. 8-9):

- (1) a plurality of first photosensor elements (R and G line sensors, fig. 9) coupled together to form a first linear array and having a first length (10um X 10um, fig. 9b) and a first resolution;
- (2) a plurality of second photosensor elements (B line sensors, fig. 9) coupled together to form a second linear array and having a second length (20um X 10um, fig. 9b) and a second resolution (line sensors B and line sensors R, G have different resolutions due to sensor size, fig. 9);
- (3) a coupler (wires connecting line sensors RGB, fig. 20) having an output, said coupler coupled to said first linear array and to said second linear array; and
- (4) a controller (CCD driving control circuit for controlling line sensors RGB, fig. 29, col. 11, lines 40-65) coupled to said coupler and providing a control signal to said coupler such that said output is coupled to said first linear array when said first resolution is employed and such that said output is coupled to said second linear array when said second resolution is employed.

Regarding claims 2-3, Maeshima further discloses the apparatus of claim 1, wherein said first linear array and said second linear array are placed on a single substrate (CCD chip 2, fig. 9).

Regarding claim 4, Maeshima further discloses the apparatus of claim 2, wherein said coupler further includes at least one amplifier (amplifiers 204-206, fig. 21), and wherein said

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first linear array, said second linear array and said coupler with said at least one amplifier are placed on a single substrate (CCD chip 2, fig. 9).

Regarding claim 5, Maeshima further discloses the apparatus of claim 2, wherein said first length and said second length (i.e. 10um, fig. 9b) are substantially the same and at least equal to one dimension of an image to be sensed.

Regarding claim 6, Maeshima further discloses the apparatus of claim 1, wherein said coupler further comprises a switch (fig. 22) controlled by said controller such that said switch couples said output to said first linear array when said first resolution is employed and such that said switch couples said output to said second linear array when said second resolution is employed.

Regarding claim 7, Maeshima further discloses the apparatus of claim 6, wherein said coupler further comprises: a first amplifier (fig. 18) coupled between said switch and said first linear array such that charges detected by said plurality of first photosensor elements are amplified into a first electrical signal; and a second amplifier coupled between said switch and said second linear array such that charges detected by said plurality of second photosensor elements are amplified into a second electrical signal (fig. 15).

Regarding claim 8, Maeshima further discloses the apparatus of claim 1, wherein said first linear array and said second linear array detect a first color of light (RBG, figs. 10-15).

Regarding claims 9-17, the applicants recite the limitations that are similar and in the same scope of invention as to those in claims 1-8 above; therefore, claims 9-17 are rejected for the same rejection rationale/basis as described in claims 1-8. For ease of implication, Maeshima discloses a single CCD chip instead of multiple CCD chips within an image scanner. Inherently, image scanner incorporates a plurality of CCD Chips (ref. # 2, fig. 9).

Regarding claims 18-19, Maeshima further discloses the apparatus of claim 13, wherein said first resolution corresponds to said first linear array having substantially 300 (line array of sensors could be any number of elements, abstract and col. 5, lines 30-65 and col. 6, lines 8-55) of said first photosensitive elements, wherein said second resolution corresponds to said second linear array having substantially 600 (twice as much as first line array sensors, col. 6, lines 25-34) of said second photosensitive elements, and wherein said third resolution corresponds to said third linear array having substantially 2400 of said third photosensitive elements, wherein said third linear array is comprised of two rows, each row having substantially 1200 (fig. 9) of said third photosensitive elements.

Regarding claims 20-36, the applicants recite the limitations that are similar and in the same scope of invention as to those in claims 1-19 above; therefore, claims 20-36 are rejected for the same rejection rationale/basis as described in claims 1-19.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) U.S. 4870483 to Nishigaki, teaches an example of image scanner comprising a plurality of image sensor arrays (CCD chips).

(2) U.S. 5773814 to Phillips, teaches an example of image scanner comprising a plurality of image sensor arrays and a method of arranging such arrays.

(3) U.S. 5055921 to Usui, teaches image line sensors with different sensing areas (fig. 7+).

(4) U.S. 6765691 to Kubo et al, teaches a scan setting attributes (i.e. user interface) that allow users to scan document/image with different resolution.

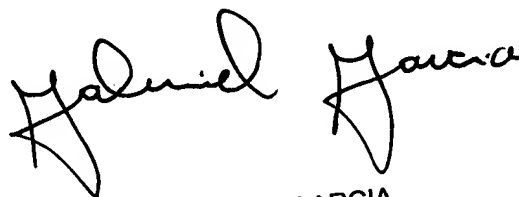
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham



GABRIEL GARCIA
PRIMARY EXAMINER